volume 53:number 3
2021 summer

ROM

MAGAZINE *of the* ROYAL ONTARIO MUSEUM SUMMER 2021

ELIAS SIME

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BREAKING THE FRAME

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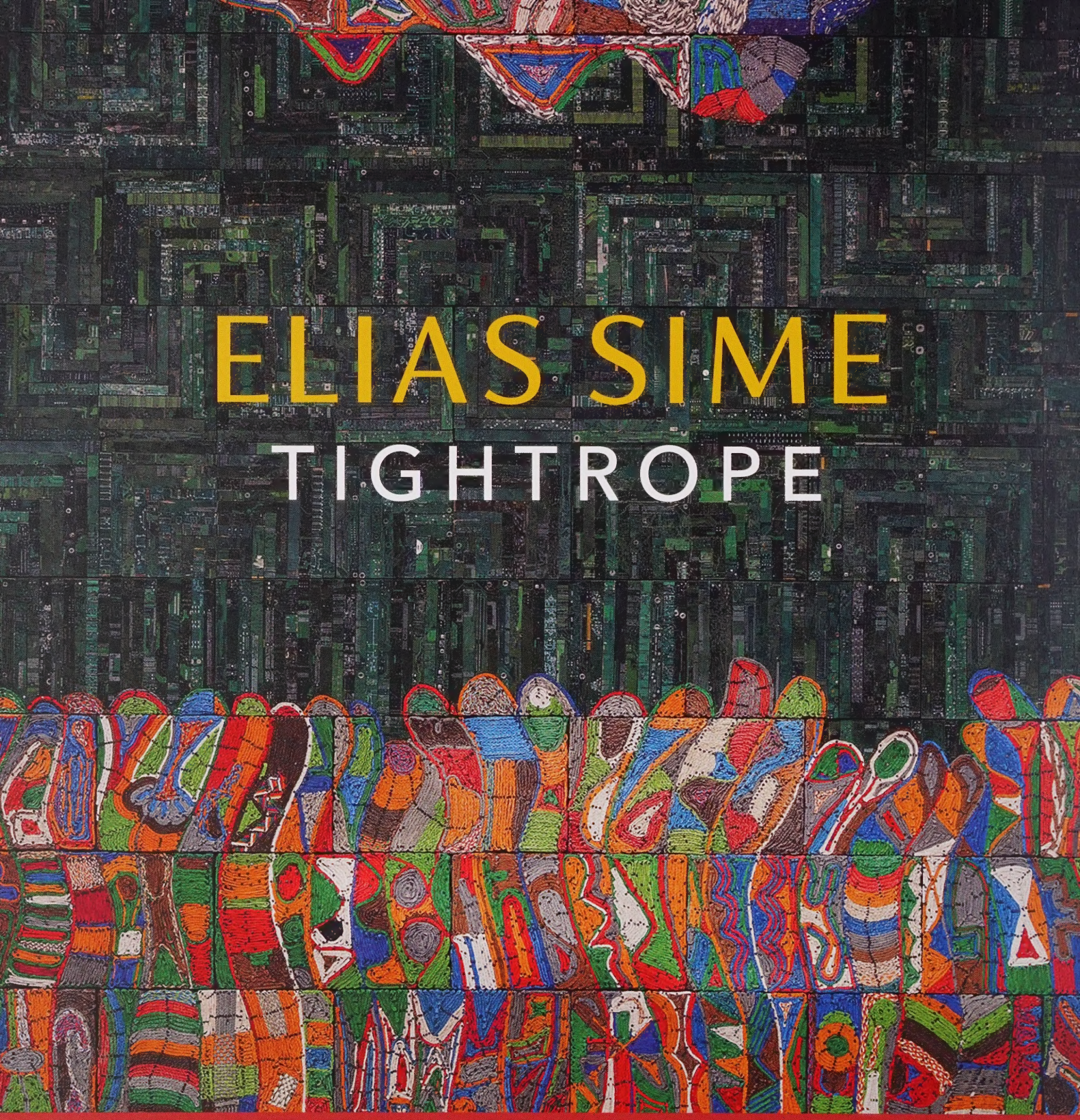

ELIAS SIME
TIGHTROPE

Canada Council for the Arts | Conseil des arts du Canada

OPENS SUMMER 2021

ROM.CA

Elias Sime: Tightrope is organized by the Ruth and Elmer Wellin Museum of Art at Hamilton College, Clinton, NY.
The ROM is an agency of the government of Ontario.

ON THE COVER
Blue whale © Phillip Colla / Oceanlight.com

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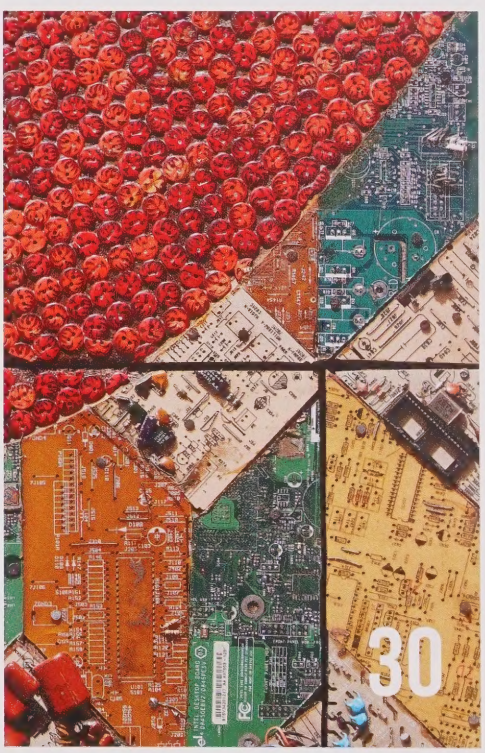

North Atlantic Right Whales (mother and calf) © National Oceanic and Atmospheric Administration / Canadian Wildlife Federation. Willner Madge Gallery, Dawn of Life © Reich&Petch. *Tightrope: Surface and Shadow 2*. Pizzuti Collection, Columbus, OH.

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UNDERSTAND OUR WORLD THROUGH ART, CULTURE, AND NATURE

As we go to press, the provincial government has just announced its three-step plan for reopening the province. This means, if all goes well, the ROM can expect to open its doors again by late July. We are very much looking forward to that moment.

We have had much to consider in this last year as the world shifted beneath our feet, and we have much to accomplish in the months ahead. As a cultural and civic-minded institution, we want to set the tone for a return to culture across the province and the country, and be an accelerator of social and economic recovery as we collectively rebuild and reimagine our way forward.

When we reopen our doors, we want to signal our ongoing commitment to bringing our community together, to inspire change, and to point the way to a deeper understanding of the world around us and our place in it. To that end, the Museum has been hard at work preparing a rich slate of new exhibitions and initiatives for our audiences that span art, culture, and nature, and invite critical discussions on the pressing ideas of our times.

This summer, we will welcome visitors back to the Museum with the launch of the exclusive ROM-original exhibition *Great Whales: Up Close and Personal*. This follow-up to our highly popular exhibition *Out of the Depths: The Blue Whale Story* from 2017 offers an enthralling and poignant portrait of three great whale species—the blue whale, the sperm whale, and the critically endangered North Atlantic right whale.

As you read this, we are about 375 whales away from the extinction of the North Atlantic right whale. This crisis is a subject of great urgency and deep concern. With ever-increasing human activity connected to modern industrialization, increased pollution, and rising ocean temperatures, the threats to our marine ecosystems grow with each passing day. Nowhere is the environmental impact more visible than in the plight of the whale. Expanding our knowledge of whales is essential to our understanding of the cascading effects of the environmental crisis on the natural world and the role we can play to preserve and protect our oceans.

Great Whales and other recent initiatives including the establishment of the Allan and Helaine Shiff Curatorship of Climate Change reflect a growing commitment on the part of the ROM to become a public stage, through our exhibitions, programs, and research, for larger conversations on critical topics such as the environment and the conservation of our biodiversity. The launch of *Elias Sime: Tightrope*, a ROM-exclusive exhibition featuring the art of acclaimed artist Elias Sime, will be just as relevant and timely. Sime's lyrical and intricately layered pieces illuminate the uneasy balance between technology and environmental destruction, while demonstrating the power of art to open new avenues of thinking about the natural world and our place in it. This is an exhibition not to be missed.

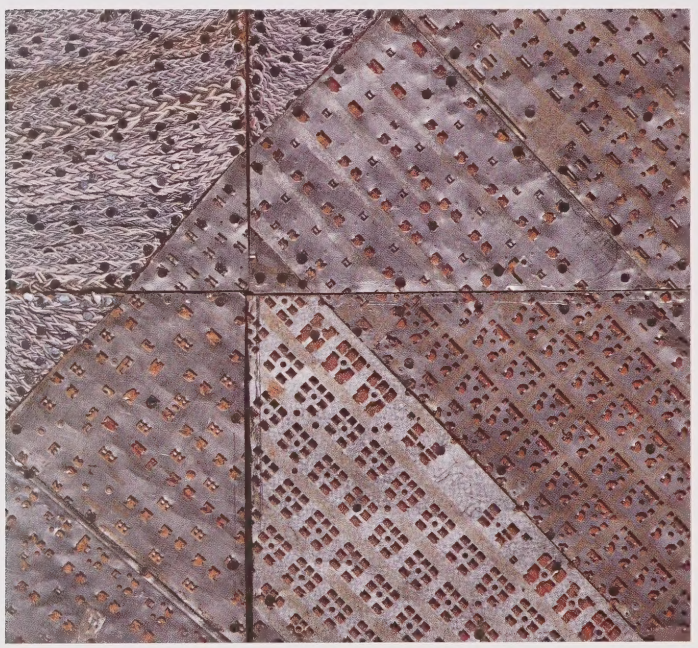
These are just two of the exhibitions that will be waiting for you when you come back to your Museum. Until then, please find us online, where we offer an in-depth array of programs and activities that bring the goings-on at the Museum directly into your home.

JOSH BASSECHES
ROM DIRECTOR & CEO

MEMBER EVENTS

EXCLUSIVE MEMBER PREVIEWS

Free with your membership



ELIAS SIME: TIGHTROPE

Summer 2021

Representing a survey of works by award-winning Ethiopian contemporary artist Elias Sime, *Tightrope* features 24 large-scale artworks (including one from the ROM's permanent collection) that use found materials—such as thread, buttons, or electrical parts—to illuminate the precarious balance between innovation that technology has made possible and its detrimental impact on the environment. This exhibition marks the Canadian debut of this critically acclaimed presentation.

Please watch your Member eCommunications or visit **rom.on.ca/members/events** for the most up-to-date information regarding upcoming Member previews and other Member-related events and programs.

Canada Council for the Arts | Conseil des arts du Canada

We acknowledge the support of the Canada Council for the Arts.

Elias Sime: Tightrope is organized by the Ruth and Elmer Wellin Museum of Art at Hamilton College, Clinton, New York.

GREAT WHALES: UP CLOSE AND PERSONAL

Summer 2021

Great whales are evolutionary marvels, cultural icons, and the largest animals on Earth. They are also critically endangered and need our help. This ROM-original exhibition takes visitors on a deep dive into the unique biology, ecological importance, and mysterious lives of three majestic species in the Canadian Atlantic—the North Atlantic right whale, the blue whale, and the sperm whale. *Great Whales: Up Close and Personal* shines a light on the plight of these social and emotional creatures, helping visitors forge a genuine connection to, and empathy for, these underwater giants.

Please watch your Member eCommunications or visit **rom.on.ca/members/events** for the most up-to-date information regarding upcoming Member previews and other Member-related events and programs.

Newfoundland Labrador

Lead Exhibition Patron: Nita and Don Reed & Family

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FREE WEEKENDS & DISCOUNT OFFERS

Our priority is to ensure you enjoy the full benefit of your ROM membership. We are continuing to plan Member previews, exchange weekends, special offers, and more. Please watch your Member eCommunications or visit **rom.on.ca/members/events** for the most up-to-date information regarding Member-related events and programs.

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Gardiner Museum

ROM Members enjoy 20% off admission to the Gardiner Museum and 10% off their meal (alcohol not included) at Clay Restaurant in the beautiful third-floor Terrace Room. Present your ROM membership card and photo ID at the front desk to take advantage of this special offer. This offer cannot be combined with any other offers or special discounts. Blackout dates may apply. Call the Gardiner Museum for more details at 416.586.8080.

Royal BC Museum

ROM Members receive 20% off daily admission rates to the Royal BC Museum. ROM Members must present a valid ROM membership card and photo ID at the box office to receive their discount. Excludes Family admission rate. One discount per membership card. Not valid for online purchases or any other offer.

Please visit **rom.on.ca/reciprocal** for details.

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ALLIANCE OF NATURAL HISTORY MUSEUMS OF CANADA

ROM Members will be granted free general admission, discounted admission, or a gift shop discount at these participating natural history museums: **Beaty Biodiversity Museum**, Vancouver, British Columbia, **Canadian Museum of Nature**, Ottawa, Ontario, **The Manitoba Museum**, Winnipeg, Manitoba, **New Brunswick Museum**, Saint John, New Brunswick, **Nova Scotia Museum of Natural History**, Halifax, Nova Scotia, **Royal Saskatchewan Museum**, Regina, Saskatchewan, and **Yukon Beringia Interpretive Centre**, Whitehorse, Yukon.

Please visit **rom.on.ca/members/events** for a list of all Member-related events and programs.

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MEMBERS SAVE*

The ROM plays an important role as a place of discovery, learning, and escape. The gift of a ROM membership will help ensure that our ongoing research, preservation, and curatorial work continues.

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Thank you for your continued support.

As a ROM Member, you are an integral part of the social fabric that makes the ROM one of the world's leading museums of art, culture, and nature. Your support provides essential funding for educational programs, research, collections, community outreach, and operations.

Your membership helps support our access programs and open the doors of the Museum to underserved communities, as well as helps fund our growing slate of original programs and exhibitions, which provide inspiring learning opportunities, diverse perspectives, and a home for lifelong learners.

JOIN IN

Watch for your Member emails about exclusive Member previews, programs, and events. Visit **rom.on.ca/members/events**.

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CROWD-SOURCED

#MYPANDEMICSTORY

Jessica, Toronto (Age Group: 16–18).

This past year, has been unlike any other in history. In the fall, the ROM will host a co-curated, crowd-sourced installation that presents a portrait of life during the pandemic as seen through the eyes of Ontario's children and youth.

The COVID-19 pandemic has had a profound effect on how kids and teens learn, play, create, and communicate. Young Ontarians have submitted personal items, including original artworks, songs, and videos, that capture their thoughts and tell their stories from this unique moment in history. Through #MyPandemicStory, we will share these experiences in both virtual and on-site displays.

↘ For more information, visit rom.on.ca/mypandemicstory.

LEARNING

11,429
students and teachers attended the live *The Science of Minecraft* special event with curator Kim Tait!

THE WORLD OF MINECRAFT

Game-based learning a hit with students and teachers

BY **SARAH ELLIOTT**

Virtual school visits have been a perennial challenge for museum educators. How do you adapt teaching with physical objects to learning in a virtual space? And how can it be done effectively to keep students active and engaged? For educators at the ROM, one of the many possible answers to these questions was obvious: Minecraft.

Minecraft is a game-based learning platform that promotes creativity, collaboration, and problem-solving in an immersive digital environment. It functions a little like an online world of infinite Lego blocks, in which the only limit is your imagination. Minecraft players are actively moving through and interacting with the virtual world, learning and building as they go.

Through several pilot programs over the past five years, the ROM School Programs department investigated and documented the ways in which students engaged with Minecraft, and how the platform could be used to foster natural inquiry-based learning and empathy. This incredibly valuable knowledge gave rise to our newest virtual program: *Museum Math: Rocks and Minerals.*

Museum Math: Rocks and Minerals was created in response to the unprecedented shifts in the learning environment over the past year. Not only did coding become part of the mathematics curriculum, but teachers must now be able to deliver instruction both in the classroom and online. Minecraft: Education Edition had the flexibility to accommodate these challenges, along with the built-in interest and motivation of many elementary school students who already play Minecraft in their spare time. It was the perfect platform for this new virtual visit program.

In the *Museum Math: Rocks and Minerals* program, students begin their journey at the Research Centre in the fictional world of Rocklandia (which conveniently has an active volcano, desert mesa, and mountain range within walking distance). At the Research Centre, students meet the in-game avatars of real ROM curators and technicians. Supported by virtual visits and asynchronous connections with a ROM educator, students learn that the scientists need help with their research at three different field camp sites. Students must travel to each site to help the scientists learn more about the nature of igneous, sedimentary, and metamorphic rocks.

On the way to each site, students encounter obstacles blocking their path that must be overcome using the friendly in-game coding agent and the block-based MakeCode coding language. After researching all three sites and returning to the Research Centre, students construct their own museum in Rocklandia to showcase their learning, incorporating important museum objectives like inclusion and accessibility into their designs.

The results from this year's test classes have been insightful, creative, and inspiring. They provide an amazing example of just how much students can accomplish when given the tools to let them combine learning, creativity, and empathy, even in the most unexpected learning environments like a video game space created by a museum.

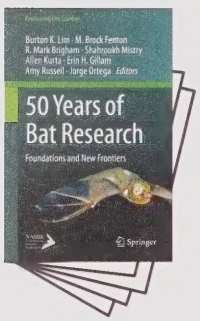
ROM Minecraft is generously supported by Barrick Gold Corporation.

LEARN MORE

For more information on the ROM Minecraft program, visit **rom.on.ca/en/learning/rom-minecraft** or contact us at **romlearning@rom.on.ca**.

NEW PUBLICATION

FROM ECHOLOCATION TO EVOLUTION: NEW BOOK CELEBRATES FIVE DECADES OF BAT RESEARCH


Burton K. Lim · M. Brock Fenton
R. Mark Brigham · Shahrookh Mistry
Allen Kurta · Erin H. Gillam
Amy Russell · Jorge Ortega Editors
50 Years of
Bat Research
Foundations and New Frontiers
Springer

Visitors to the ROM will likely associate curators with studying collection specimens, taking field trips to foreign locales, and conducting research in diverse fields of studies. What most people might not know is that we also contribute to the wider global community by participating in other professional activities, including leadership roles in organizations that set the direction for scholarly disciplines and as editors in the peer-review process for academic publications.

I have been fortunate to bring two such endeavours to recent fruition. I am Chair of the North American Society for Bat Research (NASBR), and we celebrated our 50th anniversary in October 2020.

We commemorated the half century of our organization, which promotes the scientific study of bats, with the publication of a new book on the only flying mammals. Because the pandemic prevented us from meeting in person, we held a webinar that highlighted each of the five decades of NASBR and a few chapter previews from the publication.

Titled *50 Years of Bat Research: Foundations and New Frontiers*, published by Springer in their Fascinating Life Sciences series, the book was published in January 2021 and covers topics ranging from echolocation to bat evolution.

I led an editorial team of eight from our society that vetted the submissions and reviewed the accepted manuscripts. We were looking for contributions that covered different aspects of bat biology with a connection to the early formation of the organization, the current state of research, and a prospectus for the future.

The publication also traces the origins of NASBR—from a small gathering of bat researchers in the southwestern United States to a continent-wide organization that is now the largest of its kind in the world.

The publication of the book created a sense of accomplishment in a year when so many other things went sideways. Continued perseverance will see us through these unusual times and back to some form of a new normal.

BURTON LIM is Assistant Curator of Mammalogy at the ROM.

AWARD

RECOGNITION FOR PROMOTING JAPANESE CULTURE

Stephen Bowman, Chair of the ROM Board of Trustees, was recently recognized by Japan's Ministry of Foreign Affairs for his work in promoting Japanese culture in Canada. The Foreign Minister's Commendations for 2020 listed Bowman among the three individuals recognized by the Government of Japan for their outstanding achievements. The commendation acknowledges Bowman's contributions to the promotion of friendship and understanding between Japan and other countries.

BOARD ELECTIONS

NEW APPOINTMENT

The ROM Membership program is an important aspect of the Museum's commitment to public access and accountability. Pursuant to the ROM Act, ROM Members elect three of the 21 positions on the Board of Trustees. A call for nominations to fill one vacancy for a Membership-elected Trustee was made in *ROM* magazine, on our Membership webpage, and in a Member eNews notice. Five candidates were nominated and an election was held from May 17 to May 31, 2021.

Doug Gibson was elected by the Membership for a three-year term of office from July 1, 2021, to June 30, 2024. Gibson is a retired family physician, an active board member of the ROM's Department of Museum Volunteers, and a committed volunteer over the past 10 years.

The ROM congratulates Doug and looks forward to working with him on the Board of Trustees. The ROM also thanks its Members for their interest and participation in the Trustee election.

REFLECTION

NEW ACQUISITION EXPLORES HOW IDENTITY IS SHAPED BY EXPERIENCE

Interior Revisited (2012–17) by Norman Kiyomitsu Takeuchi. Acrylic on canvas, 121.9 x 182.9 cm

The ROM recently acquired a painting by Japanese Canadian artist Norman Kiyomitsu Takeuchi. *Interior Revisited* (2012–17) was part of the ROM-original exhibition *Being Japanese Canadian: reflections on a broken world* (2019). In the work, Takeuchi addresses his experience of the 1940s, when more than 22,000 Japanese Canadians were interned through the War Measures Act. In 1988, the Canadian government issued its apology for this injustice, but for Takeuchi, the trauma of the event has remained. It has become an underlying theme in his work as he seeks to resolve how to best express the complexity of identity and identities. Here, he reflects on creating this powerful and poetic work.

"The nature of making art means I'm continually striving to create something new. In that process, I seek to find the undiscovered by means of experimentation and risk-taking. Over time, both the works and the thought processes evolve. This gradual change can result in looking at previously completed work in a different way. *Interior Revisited* is one such case in point. I had painted an initial version five years earlier, titling it simply *Interior*. It was one of a series of paintings that addressed the 1940s internment of Japanese Canadians, which I myself experienced as a child. The word 'interior,' to many of us, was synonymous with 'internment camp' or just 'camp.' 'Where were you in the interior?' was—and for some still is—our way of connecting through shared understanding of that uprooting experience.

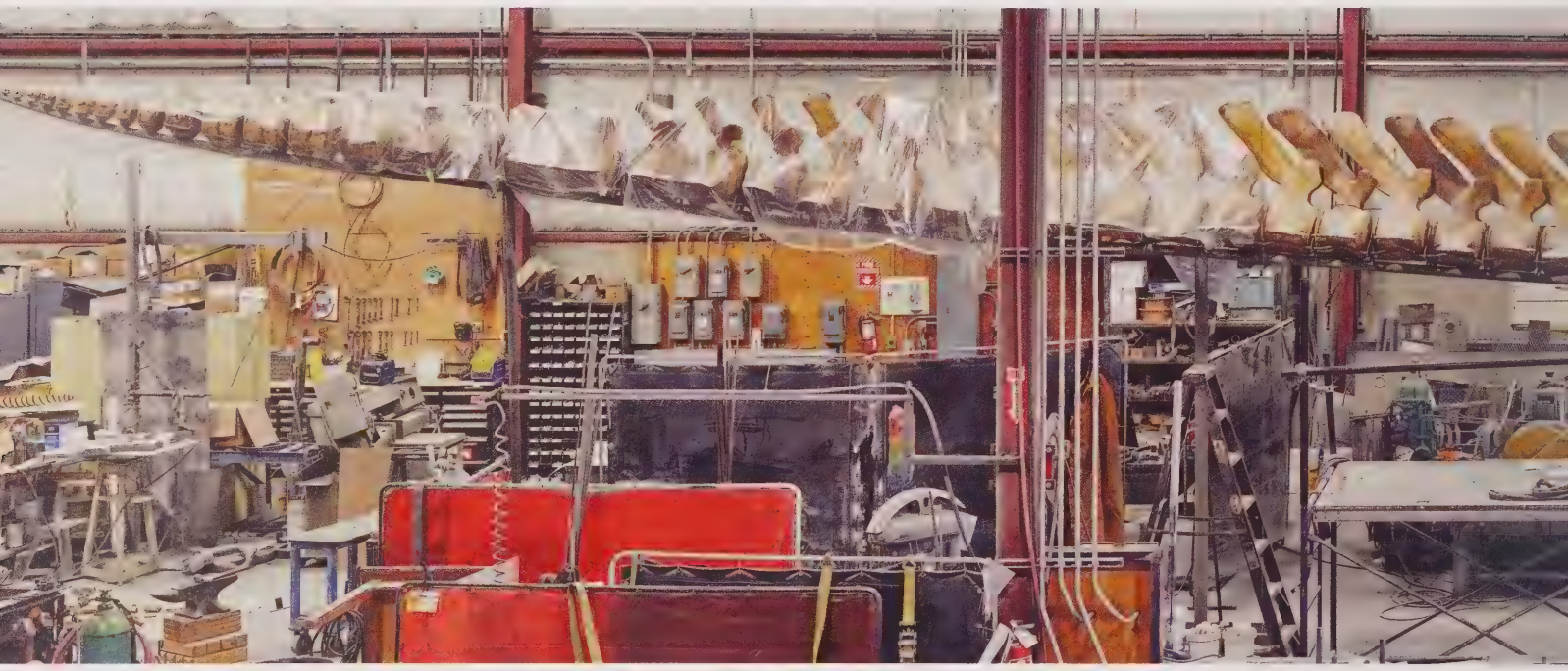
"*Interior Revisited* exemplifies my determination to convey my story and my identity as a Canadian of Japanese descent through my art. In this painting, the juxtaposition of a resident from a BC internment camp and that of the kimono-clad women from a nineteenth-century ukiyo-e print underlines not just my own cultural heritage, but also the racial profiling that was at the heart of my experience in the 1940s.

"All these elements were present when I first embarked upon the Japanese Canadian series 23 years ago, in 1998. The abstract shapes were starker then: the disconnection between the undefined and figurative jarringly distinct. But in reworking *Interior*, these shapes became more nuanced and sombre. The figures in the painting are rooted in realism, but the invented abstract forms, sometimes reshaped multiple times until they satisfied some sort of undefined criteria, are ambivalent shapes that express my disorientation of where I fit in the world. These heightened ambiguities have become a metaphor for my attempt to come to terms with that traumatic period, giving rise to constantly shifting moments of interior reflection."

—Norman Kiyomitsu Takeuchi

A Tale of Three Whales

How whale skeletons are prepped for an exhibition



This summer, three great whales will be on display at the ROM. *Great Whales: Up Close and Personal* takes visitors on an extraordinary journey that explores the lives of the blue whale (the largest animal on Earth), the sperm whale (the largest toothed animal today), and the North Atlantic right whale (a species on the brink of extinction with only 75 breeding females remaining).

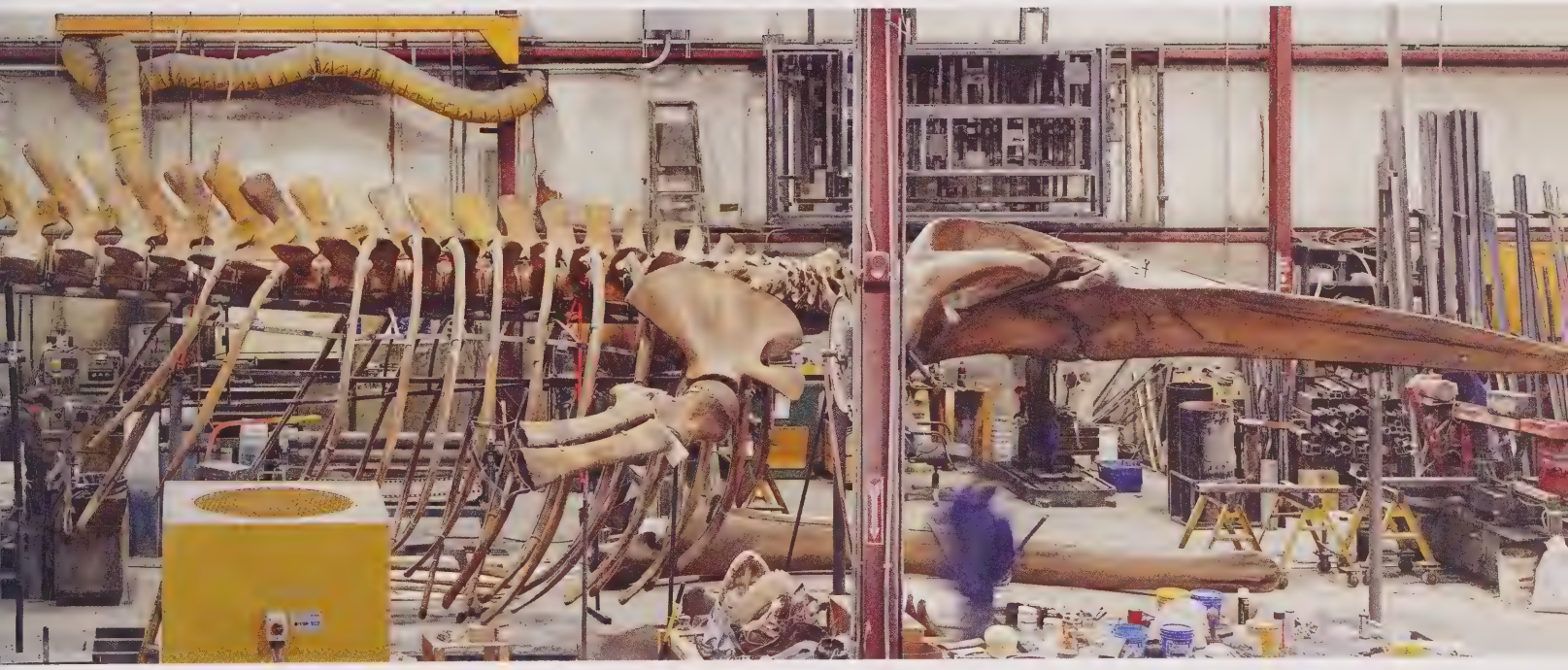
Before the whale skeletons go on display, they undergo an extensive cleaning and degreasing process. Research Casting International, a company known for assembling dinosaur mounts and other specimens for museum display is helping the ROM prepare the skeletons for the exhibition.

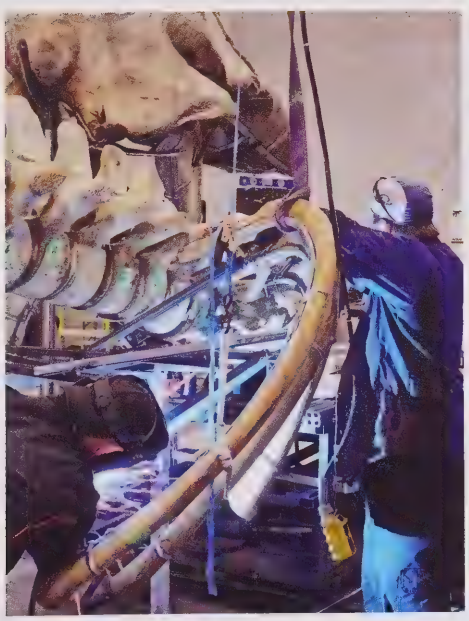
After a long composting process where the flesh and fat are removed from the bones, the skeletons go through a detergent "shower" for a heavy-duty cleaning. Whale bones contain a lot of oil, and these baths ensure that no oils drip on the exhibition floor (or on visitors' heads!). Given the size of these gigantic animals, submerging these bones would require a large amount of space for what would essentially be customized swimming pools. Instead of a bath, the bones are sprayed with cleaning solution to dissolve the fat. Finally, the bones are prepared for shipping to the ROM. There, the skeletons are assembled and mounted for display. ◘

> ***Great Whales: Up Close and Personal*** takes visitors on an extraordinary journey that explores the lives of the blue whale, the sperm whale, and the North Atlantic right whale.

Above: The blue whale skeleton assembled at Research Casting International.

Below: A closer look at the whale vertebrae, teeth, and ribs. While the blue and right whales are baleen whales, that use filter feeding, the sperm whale is a toothed whale with conical teeth in its lower jaw.





Lamba Marevaka: Cloth of Dazzling Colour

The ROM acquires a contemporary silk mantle from Madagascar

BY **SARAH FEE**

In this year of tribulations comes a much-needed blaze of shimmering colour. This spring, the ROM's Global Fashion & Textiles collection welcomed an important new acquisition: a contemporary handwoven silk mantle (akotifahana) from the Lamba Sarl studio of Madagascar.

For the past 25 years, the studio team has striven to recapture the grandeur of Madagascar's historic silk weaving traditions. This oversized mantle (c. 2017–18), in over 12 different glowing colours with subtle touches of ikat, represents the team's largest and most ambitious piece to date.

Lying east of Mozambique, the large island of Madagascar was settled thousands of years ago by peoples coming from both Indonesia and continental Africa. They blended weaving techniques from Africa and Asia to create brightly coloured and striped shoulder mantles and wrapper skirts from local cotton, raffia, tree bark thread, wild silk, and plant dyes.

In the early 19th century, Madagascar's weavers embraced a new imported fibre to create new styles: shiny reeled floss silk from the Chinese silkworm. Weavers living near the royal seat of Antananarivo dyed the silk in bright colours and wove it into raised patterns ranging from geometric shapes to plants and objects from daily life. Called akotifahana, these luminous silks of juxtaposed colours are often compared to stained glass. Rulers gifted the cloth to European dignitaries. By the late 19th century, however, large mantles fell from fashion in Antananarivo, and associated weaving skills died out.

Martin Rakotoarimanana with Daniel Rafidison.

> The Lamba Sarl team worked for more than six months to create the oversized silk mantle.

To recapture the former grandeur of akotifahana, in 1995 British art historian Simon Peers gathered together a group of master weavers. For fifteen years, the group Lamba Sarl, headed by Martin Rakotoarimanana and Daniel Rafidison, has sought inspiration in historic akotifahana to create contemporary original masterworks in new design configurations and colour palettes.

Lamba Sarl's works have been featured at the Art Institute of Chicago, the British Museum, and the Smithsonian Institution, among others. In 2010, the group began a new adventure, weaving silk from the golden orb spider. One of their creations, a spider silk cape, was recently displayed at the ROM as part of the *Spiders: Fear & Fascination* exhibition.

In 2017, after 25 years together, several master weavers were looking to retire. The group thus turned to making their most ambitious akotifahana to date. For more than six months, four weavers and four seamstresses and passementerie specialists crafted nine individual panels, measuring an impressive 2.5 x 2.5 metres altogether. Special touches that harken to past traditions include tie-resist ikat flourishes and the intricately plaited and knotted fringe. Named Lamba Marevaka, meaning "cloth of dazzling colour," the mantle was woven by Martin Rakotoarimanana, Daniel Rafidison, Hortensia Harinjaka, and Rija Ranarivelo. Its fringes were plaited and knotted by Mbolatiana Raharimalala, Rondro Faravololona, Mino Colette Randrianasolo, and Eugenie Nathalie Rasoavololona.

This contemporary work both complements the ROM's existing historic examples of woven silks from Madagascar, and as importantly recognizes and supports living textile artists working in Madagascar today. ■

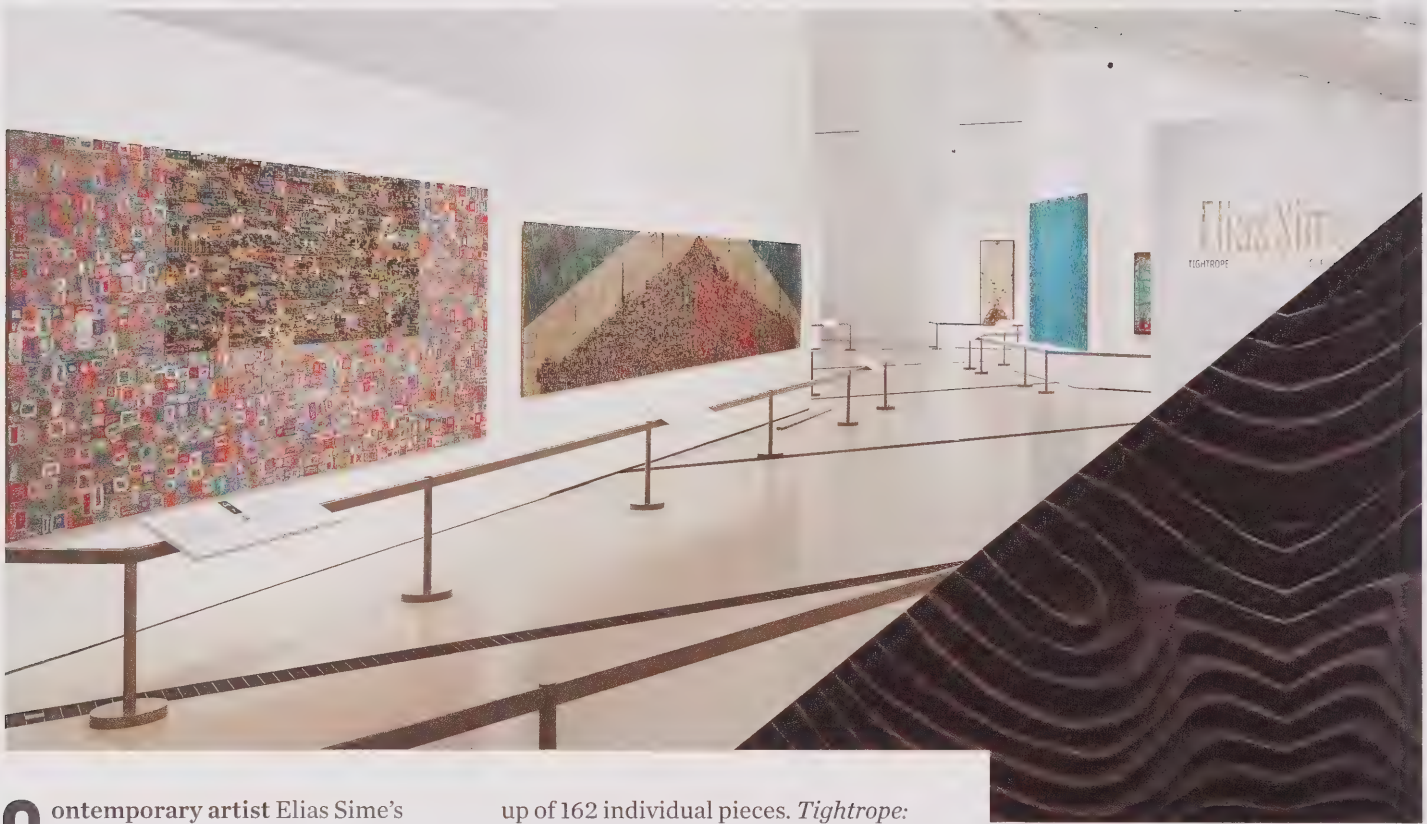
SARAH FEE is Senior Curator of Global Fashion & Textiles at the ROM.

Photograph by Simon Peers.

Lamba Marevaka, Antananarivo, Madagascar. Silk, ikat, supplementary weft, supplementary warp, hand knotting, 240 x 240 cm

Building an Exhibition

A closer look at the making of *Elias Sime: Tightrope*



Contemporary artist Elias Sime's work is a visual delight. His art is lyric poetry where the stanzas are a dulcet blend of circuit cards, keyboards, wires, buttons, and threads. And now, these beautiful compositions are part of the ROM's newest exhibition.

Elias Sime: Tightrope marks the first major museum exhibition of Sime's work in Canada. Featuring 24 works of varying scale, the exhibition took ROM staff two-and-a-half weeks to install. According to Johnathan O'Neil, who was the lead preparator on the project, the careful unboxing and meticulous installation of each large work—averaging 70 parts to the whole—could take up to three-quarters of a day. The largest work, *Tightrope: Surface and Shadow 2*, is made up of 162 individual pieces. *Tightrope: In Boxes*, a recent ROM acquisition, comprises 63 parts of reclaimed electronic components and insulated wire on panel.

"From afar, Sime's compositions read as large-scale paintings, but when you come close, they tell a more complex story," says Silvia Forni, the Senior Curator of Global Africa at the ROM and curator of the Toronto presentation of *Tightrope*. "Sime plays masterfully with the brilliant greens of the motherboards and the hues of telephone wires, but the components of his pictures are not just colours. They are traces of human ingenuity and desires that invite us to read the work from different perspectives." ◘

> "From afar, Sime's compositions read as large-scale paintings, but when you come close, they tell a more complex story."

Preparators assembling *Tightrope: In Boxes* (2017) by Elias Sime. Reclaimed electronic components and insulated wire on panel, 162.6 x 362.3 cm

Opposite: A gallery view of *Elias Sime: Tightrope*.

HOW TO SEE IT

BREAKING THE FRAME
August 14, 2021, to January 16, 2022
Third Floor Centre Block

Breaking the Frame

Deepali Dewan in conversation with Phillip Prodger on the far-reaching impact of photography

BY **DEEPALI DEWAN**

Argument in a Trailer Court, Richmond, California, (1944) by Dorothea Lange, U.S. (1895–1965). Vintage gelatin silver print

All works in *Breaking the Frame* come from the Solander Collection, except for a small number drawn from ROM's collections, as noted in the display. Dedicated to the enjoyment and understanding of photographic art in all its forms and founded by two curators, Solander is a private collection based in California and Oregon. It has a special emphasis on women, under-recognized artists, and diverse traditions internationally.

[SOLANDER]

What first drew you to study photography?

I found my way to photography over time. Growing up in Hong Kong, I vividly remember walking up and down Wyndham Street, where most of the galleries were then, hungry to learn everything I could about the things on display. I first developed a passion for Chinese landscape painting, and later works on paper in all forms. I love the intimacy that paper is capable of; it can be like having a personal conversation with someone from another time or place. Earlier in my career, I was actually a curator of prints, drawings, and photographs. As I got to know more about photography, I developed an expertise and became known for that, but I still love art of all kinds.

What was it about the photographic image that piqued your interest?

Photography is something everyone can relate to; it's inclusive, democratic, and global in its reach. At the same time, it has certain qualities that separate it from other media. One is the ability to capture a scene with exquisite detail, mimicking the way the eye sees. The other is the power to capture a narrow slice of time. The combination of these two things creates tension—incredible veracity combined with a fixed time scale. It's the past made present, in perpetuity. I think of photographs as sand in the oyster of time, an irritant that results in something uniquely beautiful. It is one of the reasons photography is so magnetic to look at and think about, and it's why it can be so transporting.

Untitled (Two Men) (1974) by Malick Sidibé, Mali (1936–2016). Vintage gelatin silver print

Photography is everywhere. We all are viewers and makers every day to the extent that sometimes it is difficult for people today to step back and get a sense of the awe and wonder that existed when photography started. Do you think that is still possible given today's image-saturated environment?

Every photograph is in some sense a voyage of discovery, a luminous moment when something came into view for the maker in a special, unrepeatable way. We can never see the world exactly as someone else did, but with a little imagination, it is possible to peer back in time, to have a window on their thoughts and feelings. That's part of photography's magic.

Photographs are like messages in bottles that are constantly being thrown into the ocean of ideas, waiting for someone else to pick them up.

Even though a picture might be 180 years old, that message is still there, as bright and insistent as it ever was. And while the technologies have changed over the years, human nature hasn't. The same emotions are present: frustration and disappointment, elation and excitement. It must have been amazing to have been one of photography's early pioneers, to have shown the world in a way no one ever had before. But you don't have to be a Victorian inventor to understand photography's power. We feel it all the time—in pictures of our loved ones, of the people, places, and things we hold dear to us. This is the key to unlocking the great pictures of the past.

Portrait of a Woman in an Elegant Interior (1882) by Robert Gagen & John Fraser (Notman Studios), Canada (Gagen, 1847–1926, Fraser, 1838–98). Hand-coloured silver print ROM collection.

Maharaja With Tiger After the Hunt (around 1890) by unrecorded maker, India (active 1840s). Gelatin silver print with hand-colouring

In the exhibition, you use pairing and tight grouping as an interpretive strategy. What do you hope to accomplish with this? What do you think two photographs "talking" to each other does that a photograph on its own can't?

Sometimes, it is only by pushing off against something else that the unique qualities of a picture become clear. There are a number of moments in *Breaking the Frame* where we've installed works close to one another in order to highlight similarities or differences. Sometimes, this enabled us to make unexpected comparisons from different time periods or across geography.

For example, there is a wonderful hand-painted portrait from the ROM collection of an aristocratic woman called Julia Carpmael, made in Toronto by artists working in the Notman Studio in 1882. We've paired it with a hand-painted portrait of a maharaja, made in India a little later.

It's a rare treat to be able to see these things never before seen together side by side—to see the personalities of the sitters shine through. In another section, there is a row of landscapes featuring trees. When you see famous pictures by well-known figures such as Aleksandr Rodchenko and Alfred Stieglitz with others such as the great New Zealand modernist Una Garlick, or the artist Dora Maar (who was also Picasso's lover), alongside the pioneering Chinese landscapist Lang Jingshan, it gives all the pictures, and the artists themselves, a fresh perspective.

Photography has been critiqued as an imperial tool, and as a technology that is embedded in a colonial logic that was about hierarchies, extraction, exploitation, and Othering, among other things. Do you think photography—born out of such a context—can be anything but that? Is there any way for photography to shed or go against this baggage?

Because photography has a reputation for being "objective," it is easy to forget that every photograph contains, knowingly or not, the prejudices of the person who made it.

There is simply no way to separate pictures from the circumstances in which they were created: power relationships, cultural attitudes, and socio-political events are all firmly

Portrait of a Woman in an Elegant Interior. ROM 2000.45.1. Sigmund Samuel Trust.

ingrained. Photography is as flawed and complex as human beings themselves. To understand the layers of meaning embedded in photographs, we have to accept and interrogate them, frankly and deeply.

They are like fossils: you can't change the geologic record, but you need to understand what you're looking at.

Mindful of this history, many contemporary photographers are using the medium to challenge the photography of the past and set a new agenda. And there is reason for genuine optimism about the field as a whole. Historically, makers from non-Western traditions, from marginalized communities within those traditions, and women in general have been left out of the conversation. That has changed dramatically in recent decades. Curators and scholars around the world have revealed incredible bodies of work that were previously neglected, restoring agency to peoples who were excluded or set aside in earlier histories.

This is one of the key aims of *Breaking the Frame*, to incorporate some of this exciting new research into our understanding of photography and to provide new context for works we think we know.

What is your favourite work in the exhibition and why?

All of the works are incredible, and if you ask me again next week, I'll probably give a different answer. But there is a gorgeous daguerreotype in the show by a female maker, known only as Madame Gelot-Sandoz, made around 1843, when photography was only four years old.

It is certainly one of the first, and may actually be the first, photograph in existence by a woman. And yet we know so little about it: why it was made and under what circumstances, who bought it, and how Gelot-Sandoz became involved in photography in the first place.

We don't even know her first name, only that she worked at a particular address in Paris in the early 1840s. It's not only a spectacular, compelling work, and a genuine treasure of world heritage, but in many ways, it sums up the whole show. We have learned so much, but we have so much left to explore.

La Philosophie, d'après Raphaël (Philosophy, After Raphael) (around 1843) by Madame Gelot-Sandoz, France (active 1840s). Half-plate daguerreotype after an engraving

What is the one idea that you'd like visitors to leave with after experiencing the exhibition?

Photography is for all of us. And after a rough year, I really hope it will bring a smile to visitors' lips. There is so much to enjoy in this show. It is by turns funny, sweet, majestic, poignant, and truly uplifting—a celebration of life, community, and all that is best in ourselves. It is a party where everyone is welcome. I think we could all use that right about now! ◘

PHILLIP PRODGER is Executive Director of Curatorial Exhibitions in Pasadena. **DEEPALI DEWAN** is Dan Mishra Curator of South Asian Art & Culture at the ROM.

Great Whales

Up Close and Personal

HOW TO SEE IT

GREAT WHALES:
UP CLOSE AND PERSONAL
Opens Summer 2021
Garfield Weston Exhibition Hall
Level B2

Lead Exhibition Patron:
Nita and Don Reed & Family

Supporting Sponsor:
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Newfoundland Labrador

Great whales are the largest animals living on Earth today. They are typically longer than 10 metres (32 feet) and weigh more than 10 tonnes (22,000 pounds). In addition, great whales are important to ocean ecosystems and have inspired cultures around the world and throughout time. This group includes most of the baleen whales, which feed by filtering prey out of the water, but includes only one toothed whale, the sperm whale. The ROM exhibition *Great Whales: Up Close and Personal* showcases three great whale species: the blue whale, the North Atlantic right whale, and the sperm whale.

Cetacea is the formal scientific name for whales, and the living whales are divided into *Odontoceti* (toothed whales) and *Mysticeti* (baleen whales). Indeed, the largest and most massive whales are mysticetes, which include many familiar species, such as the blue whale—the heaviest animal ever to have lived. But there are several relatively small mysticetes as well. Likewise, there are large toothed whales. The killer whale, or orca, is related to dolphins and is big, but not large enough to be considered a great whale. There are about 90 species of whales in the oceans at this time, of which 12 are considered great whales. In addition to the three species in the ROM's exhibition, the other nine great whales are the bowhead, southern right, North Pacific right, sei, Bryde's, Omura's, fin, grey, and humpback.

Canada's great whales

Great whales swim in the expansive waters of all the oceans around the globe including the Gulf of St. Lawrence, one of the most productive marine environments in the world. In addition to fresh water from the Great Lakes, it receives the cold Labrador Current from the Arctic and the warm Gulf Stream from the Tropics. This milieu supports a wealth of marine organisms ranging from microscopic plankton to great whales. But the Gulf of St. Lawrence is also a major international shipping corridor and commercial fishing area that is a primary economic driver for Atlantic Canada.

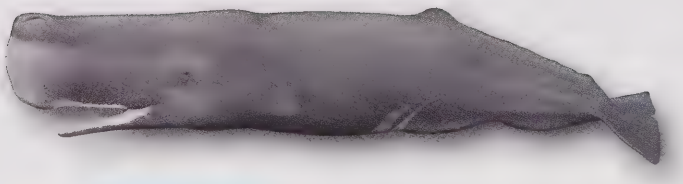
The waters off Canada's east coast are a prime feeding zone for predators and prey. Blue whales feast on swarms of krill, small shrimp-like crustaceans, in the Gulf of St. Lawrence beginning in the early spring. Until a few years ago, North Atlantic right whales were common in the Bay of Fundy. However, recent climate-driven changes have altered the distribution of copepods, tiny crustaceans that are their main food. This has affected the distribution of North Atlantic right whales. They have begun showing up in the Gulf of St. Lawrence, where they were not typically found before, resulting in more ship collisions and entanglements in fishing gear. Sperm whales hunt for squid in the deeper waters farther out in the Northwest Atlantic.

Much remains unknown about where great whales mate and give birth. North Atlantic right whales mate during summer in northern waters, and females migrate south for the winter to give birth off the coast of the southeastern United States. Adult male sperm whales tend to migrate farther toward cooler, higher latitudes during summer than females and younger males. But adult males return to warmer waters to mate. No one has seen a blue whale give birth, and little is known about where it happens. It probably occurs in winter, when whales are in warmer waters nearer to the equator.

The blue whale is the heaviest animal to have ever lived—even heavier than a dinosaur. The blue whale can weigh up to 150 tonnes (330,000 pounds). That's equal to 2,200 average-sized people weighing 68 kilograms (150 pounds). The ROM's blue whale weighed about 90 tonnes (200,000 pounds), equivalent to 15 African savanna elephants.

But the tallest animal ever was a giant sauropod that roamed North America about 110 million years ago called *Sauroposeidon*, which measured 18 metres (59 feet) high. Blue whales are about 5 metres (16 feet) from belly to blowhole. Blue whales can reach about 33 metres (108 feet) in length, with females usually longer than males.

Opposite: Mist from the blow of a blue whale still visible after it surfaced.

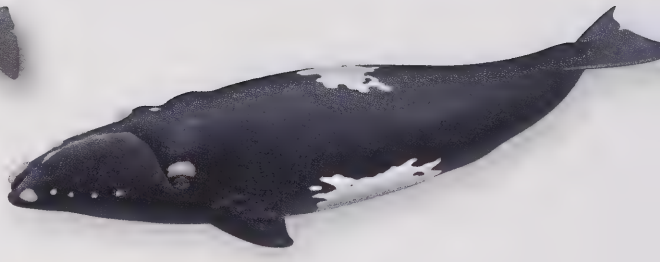


The only toothed whale that is considered a great whale.

SPERM WHALES
Physeter macrocephalus

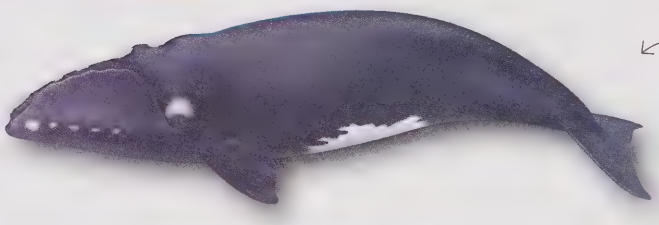
Live in deep waters worldwide, from the Tropics to the edge of polar ice packs

Females: 15 tonnes (33,000 lbs.) and up to 11 m (36 ft.) long
Males: 45 tonnes (99,000 lbs.) and up to 16 m (52 ft.) long



SOUTHERN RIGHT WHALES
Eubalaena australis

Live in oceans throughout the southern hemisphere

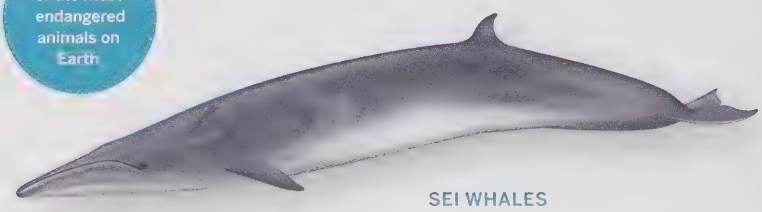


One of the most endangered animals on Earth

NORTH ATLANTIC RIGHT WHALES
Eubalaena glacialis

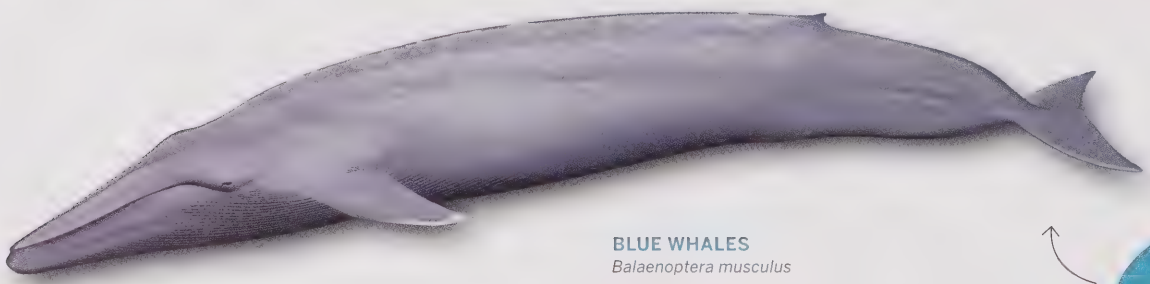
Live in coastal waters of the North Atlantic Ocean

- 60–90 tonnes (132,000–198,400 lbs.)
- up to 18 m (60 ft.) long



SEI WHALES
Balaenoptera borealis

Live in oceans worldwide, from the Tropics to near polar regions



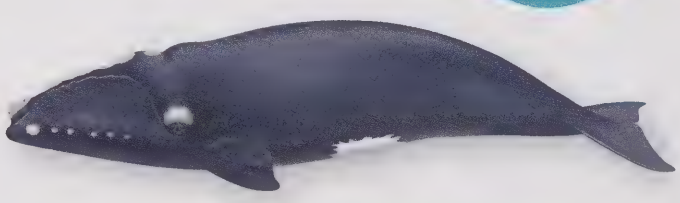
BLUE WHALES
Balaenoptera musculus

Live in all oceans except the Arctic

- 50–150 tonnes (110,000–330,000 lbs.)
- up to 33 m (108 ft.) long

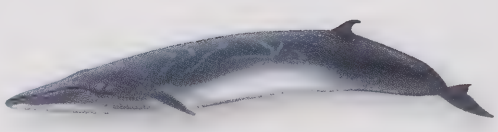
The heaviest of the great whales, making it the heaviest animal on the planet — ever

There are about 90 species of whales in the oceans at this time, of which 12 are considered great whales. In addition to the three species in the ROM's exhibition, the other nine great whales are the bowhead, southern right, North Pacific right, sei, Bryde's, Omura's, fin, grey, and humpback.



NORTH PACIFIC RIGHT WHALES
Eubalaena japonica

Live in the North Pacific Ocean and Bering Sea



OMURA'S WHALES
Balaenoptera omurai

Live in deep, tropical regions of the Pacific, Atlantic, and Indian oceans

Whale illustrations © Uko Gorter.

HUMPBACK WHALES
Megaptera novaeangliae
Live throughout the world's oceans

BOWHEAD WHALES
Balaena mysticetus
Live in icy waters of the Arctic Ocean

BRYDE'S WHALES
Balaenoptera edeni
Live in warm, temperate regions of the Pacific, Atlantic, and Indian oceans

GREY WHALES
Eschrichtius robustus
Live in the North Pacific Ocean

FIN WHALES
Balaenoptera physalus
Live in deep waters throughout the world's oceans

How did great whales get so big?

Whales have been able to reach such great sizes partly because they are adapted to life in the sea and live entirely in water, which supports their great mass and reduces the effects of gravity. Land animals can be only as heavy as their legs can support, and legs can get only so big and still be functional. Whales are buoyed in the ocean, and their size is not as constrained as that of terrestrial animals.

The large size is also attributable to the fact that heat radiates much more rapidly in water than in air. As bodies increase in size, volume increases more quickly than surface area, which means relatively less heat is lost. Whales also have a layer of insulation called blubber, another adaptation that helps them stay warm in cold waters.

The size of most baleen whales requires additional explanation. Lengths over 10 metres may have been achieved some 15 million years ago, and larger-bodied species became more common about 4.5 million years ago. The size increase was driven also by changes in oceanic conditions associated with the repeated advances and recessions during the more recent Ice Ages. These fluctuations in the marine environment changed ocean currents and led to patchy but highly productive feeding opportunities for baleen whales, which eat plankton and other small organisms such as krill, which occur in large swarms.

EATING HABITS

- Baleen whales can take in a huge amount of food in a single gulp. Some, like right and bowhead whales, swim steadily through a swarm of tiny prey.
- Toothed whales eat a variety of fish, octopus, cuttlefish, and squid—sperm whales, the largest of the group, even feed on giant squid. Sperm whales use their teeth to grasp large prey, instead of cutting or chewing their meal with sharp teeth.
- Blue whales lunge forcefully through a prey swarm to get their fill. They eat about 70 mouthfuls of krill a day! Each gulp can hold about 60 kg (132 lbs.).

Whale illustrations © Uko Gorter. Krill illustration by Margot Thompson.

Whales at risk

Great whales have been hunted for centuries, first sustainably for food and survival. But as the demand for blubber and baleen increased, so did the whaling. By the end of industrial whaling in the 1980s, the global populations of the largest whales had been reduced by over 95 percent. We have long exploited these giants for commercial and industrial gain. Now, it is up to us to help save them from extinction.

Some of the richest feeding grounds for great whales are found in or near the Gulf of St. Lawrence. Six species are often seen in this extraordinary area, including blue, sperm, and North Atlantic right whales. Today, many whale species are threatened or endangered. In the Northwest Atlantic, whales must avoid ship traffic, escape from fishing lines that entangle them, and overcome challenges caused by human-induced climate change. Our human activity has caused whales great harm. It is now up to us to help save and protect the whales. Whales can recover if given a chance.

> WE HAVE LONG EXPLOITED THESE GIANTS FOR COMMERCIAL AND INDUSTRIAL GAIN. NOW, IT IS UP TO US TO HELP SAVE THEM FROM EXTINCTION.

There are approximately **360,000 sperm whales left** worldwide, a reduction of an estimated 65 percent since before whaling. Sperm whales have been known to get entangled in deep sea cables when feeding close to the ocean floor. Another human-induced factor is fast becoming a threat. Reports of sperm whales found dead with bellies full of plastic are increasing.

There are fewer than **20,000 blue whales left** in the world today. It is estimated that the population has been reduced by 94 percent since before whaling. Blue whales are considered an endangered species in Canada and the United States. In California, policy changes and the banning of hunting have allowed the North Pacific population to rebound to almost 90 percent of what it was before whaling.

At the end of 2020, there were fewer than **375 North Atlantic right whales left** in the world. It is estimated their population has been reduced by 98 percent since before whaling. Even more alarming is that only 75 reproductive female right whales remain. The good news, though, is that 17 new calves have been counted for the 2021 breeding season, so there is still hope. However, if we don't change our actions, right whales could be extinct in less than 20 years. In the last few years off the coast of Canada and the United States, 51 percent of right whale deaths were caused by entanglements, and 37 percent were the result of ship strikes.

Blue whale © Philip Colla / Oceanlight.com. Sperm whale by Sergio Hanquet, iStock.

What can we do?

We can do so much to help our whales, and it doesn't matter if we live on the east or west coast of Canada, or in the middle of the country. To start, we can learn more about the challenges these animals face and support the organizations helping to protect them. If you want more information on the North Atlantic right whale in particular, check out the North Atlantic Right Whale Consortium website, which provides a full list of the organizations involved (narwc.org).

Fishers, crabbers, governments, and environmental organizations on the east coast are working hard to protect whales. We can do our part by keeping our water clean because all water is connected, especially directly from the Great Lakes to the Gulf of St. Lawrence.

We can also minimize the use of chemicals, pesticides, and other pollutants that go down our drain or from our lawns to the storm sewer and eventually end up in the ocean.

We can reduce using plastics. Switch to reusable water bottles and shopping bags, and eliminate all other one-time-use plastics. Let's keep plastics out of our rivers, lakes, and oceans.

We should buy local whenever possible. Let's slow down the amount of shipping traffic around the world and eat responsibly sourced seafood that reduces over-fishing, ensures the long-term health of species, and helps protect the ocean environment. Buy from companies who support the environment, and choose political leaders who care. Our money and our vote matter.

And most importantly, we should get outside, fall in love with the natural world around us, and think about how our actions can have a positive effect on the world. ◘

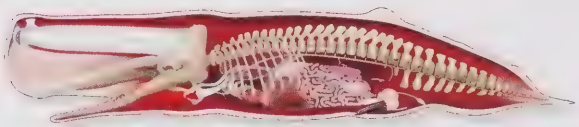
—Excerpted from the forthcoming publication *Great Whales: Up Close and Personal* by Mark Engstrom, Burton Lim, Jacqueline Miller, Oliver Haddrath, Mark Peck, and Gerry De Iuliis.

North Atlantic right whales, mother and calf.

Anatomy of a Skeleton

Whales are not to scale.

Sperm Whale

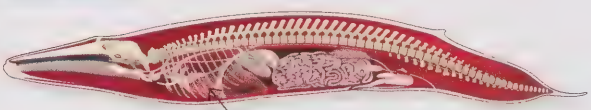


The forehead of sperm whales is big and bulbous. It contains soft tissues that decompose when the whale dies, so they are not preserved with the skull.

North Atlantic Right Whale

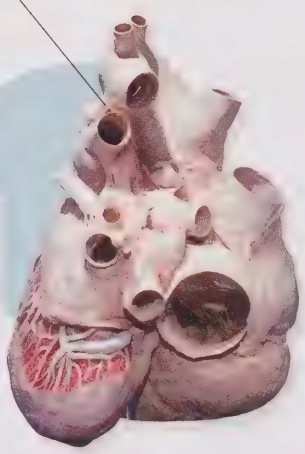
Look at how curved the upper jaw is. Right whales have baleen plates in their mouths for feeding. These keratin sheets are extra long to filter millions of tiny copepods from the water.

Blue Whale



When whales dive, their giant ribcage compresses. This prevents the ribs from breaking under the pressure and damaging the heart and other organs within.

A **whale heart** works the same as a human heart, but is different in shape, size, rate, and volume. The blue whale heart is the largest in the animal kingdom.



This fall, a new publication from ROM Press will complement the ROM-original exhibition ***Great Whales: Up Close and Personal***. Showcasing the largest animals in the world, the book tells the stories of adaptation and exploitation of three species—blue whale, North Atlantic right whale, and sperm whale—and provides a lasting connection to these magnificent leviathans

Dawn of Life

Our newest gallery explores the history of more than four billion years of life on Earth

BY **LUCY CHANG** and **KEVIN SEYMOUR**

When the doors to the Willner Madge Gallery, Dawn of Life open in late 2021, visitors will have access to a whirlwind tour of the first four billion years of life on Earth. Occupying 8,300 square feet, this vibrant space will allow visitors to learn about never-before-displayed specimens from the ROM's fossil collections, which have been instrumental in redefining how we view the history of life on Earth.

The new Dawn of Life gallery tells the story of an immense stretch of time spanning the earliest singular cells to the rise of dinosaurs and mammals. Evidence of some of the most significant moments in Earth's history is on display—including the evolution of photosynthesis, the origins of nearly every animal group alive today, and the expansion of plants and animals from oceans onto land. Hanging from the ceiling down the length of the gallery, a sculptural timeline ribbon tracks the story as it is told chronologically through the fossils beneath it.

At the start of this ribbon, visitors will be able to touch a rock containing some of the earliest evidence of life on Earth. The land now known as Canada contains exposures of the oldest rocks formed on Earth, and this tough, reddish-brown rock was collected from northern Quebec. Magnification reveals thin tubes thought to have been formed by iron-oxidizing bacteria at least 3.77 billion years ago and possibly as long as 4.28 billion. The rock formed along submarine hydrothermal vents, one of the environments in which life is thought to have first evolved, and rocks like these provide valuable insights into what conditions on Earth were like during those first critical stages.

Toward the far end of the timeline ribbon, a red archway represents the largest mass extinction ever on Earth, which took place around 252 million years ago and separates the long early history of life from the Triassic Period. The Triassic is the start of so many lineages with which most visitors will be familiar, such as dinosaurs and mammals, both of which have featured galleries following the Dawn of Life gallery. With this large swath of time before the age of dinosaurs and age of mammals filled in, visitors will finally understand the origins of the life presented in these perennially favourite galleries.

The red portal itself is one of four extinction markers in the gallery, each of which represents a major extinction event recognized by scientists based on fossil evidence. The ways in which biodiversity has waxed and waned through time is a theme that permeates this gallery. Extinctions are such a constant and critical aspect of the history of life that geologists and palaeontologists have largely organized the geological time scale into periods based on the turnover of species. Mass extinctions, in particular, mark the most dramatic divisions between geologic eras in the past 500 million years. These are relatively short periods when many, many species went extinct. Four of the five largest mass extinctions in Earth history are signalled in this gallery by an angled red pillar, summarizing the evidence, potential causes, and impacts of each. Frequently, these extinction events are linked to periods of rapid climate change, stark warnings of what we may expect today in what many scientists are calling the sixth mass extinction.

No other group of animals exemplifies how diversity can rise and fall more than the trilobites. Over 20,000 species of this hyper-diverse group of arthropods have been described, and their distinct and sometimes fantastic shapes have made them iconic fossils. They are found only in rocks dating from 252 to 251 million years old but were abundant during this time. While alive, trilobites lived in virtually all marine habitats, and fossils have been uncovered on every modern continent. Despite their diversity, abundance, and longevity, no trilobite survived past the Permian Period, when the largest mass extinction claimed 90 percent of all marine species.

Though the fossil record provides the strongest evidence of how extinctions have impacted the trajectory of life on Earth, the Dawn of Life gallery focuses as much on the appearance of new traits and species as on their disappearance. It celebrates biodiversity through a series of twelve innovations—key events in the evolution of life.

A rendering of the forthcoming Dawn of Life gallery.

THIS ROCK, COLLECTED IN NORTHERN QUEBEC, CONTAINS SOME OF THE OLDEST PUTATIVE EVIDENCE OF LIFE ON EARTH.

One of the smaller and more inconspicuous specimens on this innovation trail is *Cooksonia*, one of the earliest land plants with vascular tissue. Living on land involves many challenges, including how to move fluids and nutrients against the pull of gravity and how to avoid drying out. Vascular tissue forms the network of tubes found in roots, stems, and leaves that transports water and nutrients to all parts of the plant and allows land plants to grow tall. *Cooksonia* was one of the first plants with this trait. Today, vascular tissue is found in most land plants, from low-lying ferns to the tallest sequoia trees. Without this innovation, there would be no trees today, and without land plants, there would be little impetus for other animal life to move onto land.

The shallow seas that covered southern Ontario resulted in an abundance of fossils dating from the Ordovician Period in southeastern Ontario, to the Silurian Period in the Toronto area, to the Devonian Period in southwestern Ontario. Nearly a quarter of Dawn of Life's specimens come from these three periods spanning approximately 125 million years, and fine examples of corals, crinoids, gastropods, molluscs, brachiopods, bryozoans, trilobites, cephalopods, and many other groups are displayed alongside even more specimens from elsewhere in the province. Visitors will be able to explore the region's remarkable history through interactive stations.

Dawn of Life's fossils come from all over the world, but Canada's palaeontological heritage is a highlight of the gallery. Fossils from internationally recognized localities from across the country are showcased in the gallery and on display for the first time at the ROM. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has identified over 1,100 World Heritage Sites worldwide, sites of special physical or cultural significance. Canada is the only country to have more than one World Heritage Site recognized for its palaeontological value: Mistaken Point Ecological Reserve, Newfoundland and Labrador; the Burgess Shale, British

THIS IS ONE OF THE APPROXIMATELY 170 TRILOBITE SPECIMENS FROM AROUND THE WORLD THAT WILL BE ON DISPLAY IN DAWN OF LIFE.

Artist reconstruction of the early land plant *Cooksonia*.

A CLOSE LOOK AT THIS SPECIMEN REVEALS A BEAUTIFULLY PRESERVED FOSSIL OF *COOKSONIA*—ONE OF THE FIRST PLANTS TO LIVE ON LAND. THIS DELICATE BRANCHING FOSSIL WAS BURIED IN A LAGOON-LIKE SETTING ALONGSIDE SEA SCORPIONS.

Columbia; Miguasha National Park, Quebec; the Joggins Fossil Cliffs, Nova Scotia; and Dinosaur Provincial Park, Alberta. Of these five sites, the first four will be featured prominently in Dawn of Life. The fifth and youngest site, Dinosaur Provincial Park, is already strikingly displayed via a number of dinosaur skeletons in the James and Louise Temerty Galleries of the Age of Dinosaurs.

Each UNESCO World Heritage Site fossil on display in Dawn of Life demonstrates why these sites are so acclaimed. For example, the fossils from Miguasha National Park, on the Gaspé Peninsula of Quebec, represent a key moment in the transition of vertebrate animals from water to land during the Devonian Period around 375 million years ago. Although Miguasha preserves multiple kinds of placoderm fish, the lobe-finned fish are well-represented and are arguably the most famous. Today, this type of fish is represented by only eight known species of coelacanths and lungfish, but every air-breathing vertebrate—from frogs to whales, birds to humans—descended from a lobe-finned fish. Because of fossils like those from Miguasha, we know that lobe-finned fish were the group that repurposed their fins for propping themselves up in shallow water, which ultimately led to the evolution of limbs and "fish" coming to land permanently. The first stage in this evolution of limbs is represented by the single basal bone in the fin of *Eusthenopteron foordi*, which set the pattern for all limbs in terrestrial vertebrates to come of having only a single bone at the top of the limb. The *Eusthenopteron* found at Miguasha is represented by a complete specimen in Dawn of Life, and visitors will be able to feel the bones in *Eusthenopteron*'s fin in a bronze cast.

The Willner Madge Gallery, Dawn of Life, completes the ROM's second-floor permanent galleries, which will tell the story of the evolution of life from the first single-celled organisms all the way up to present-day biodiversity. Some of the most crucial events in the history of life on Earth took place during the more than four billion years covered by this gallery, from mass extinctions to evolutionary innovations, and Dawn of Life serves as a gathering place for these stories and the extraordinary fossils that are evidence of them. Very few museums have the palaeontological collections to support this whole story, and we can all be proud that the ROM is one of them. ◘

LUCY CHANG is Contract Assistant Curator of the Dawn of Life gallery at the ROM. **KEVIN SEYMOUR** is Assistant Curator of Vertebrate Palaeontology at the ROM.

HOW TO SEE IT

ELIAS SIME: TIGHTROPE
Opening Spring 2021
Roloff Beny Gallery
Level 4

Tightrope

Nature, communication, and expression in the work of Elias Sime

BY TRACY L. ADLER

We learn about the beauty of nature as a matter of course. Throughout time and across cultures, artists, poets, musicians, writers, and other creative thinkers have reflected on the beauty of the natural world as a featured subject of their work. From the arabesque forms and brilliant colours of flowers in bloom, to the limbs of trees flourishing with leaves and laden with fruits, to the awe-inspiring biodiversity of insects and animals, the variations that have evolved over time, with and without human intervention, are both functionally and visually remarkable. We marvel at the uniqueness and dynamism of natural forms but rarely apply similar aesthetic criteria to man-made objects and machines. Is a button, an electrical wire, a bottle cap, or a computer keyboard worthy of such aesthetic contemplation? We do not automatically weigh technology's beauty beyond the sleekness of its overall design; its inner workings—its interior world—remain a mystery. While we think of ecosystems as a balance of environment, animals, and plant life, could we also consider trees as a society in mutual communication, or a community of animals as a network endowed with a kind of syncopation similar to that of modern technology?

For Ethiopian artist Elias Sime (born 1968), these worlds are not as oppositional as we might think. He employs the material aspects of technology—electrical wires and transistors, cellphone components, computer keyboards, and motherboards, for example—in ways that often suggest natural forms, such as landscapes and figures. The artist remarks, "Humans are the bridge between the natural and built environments. We cannot be separated from either one." Expertly braiding and twisting electrical wires into textile-like surfaces with gestures akin to brushstrokes, Sime creates a sense of movement and energy that might suggest organic phenomena—a rising wisp of smoke, clouds in the sky, light reflecting off the surface of water, a bird's-eye view of a landscape. His works are an exercise in patience: sometimes, he searches for materials for years to complete a tableau in a specific palette. To realize *Tightrope: Noiseless 2*, the artist collected rust-coloured wire, a colour not often found in cable bundles, for over a decade. The vast, variegated brown surface recalls scorched earth, but in the lower left corner, a cluster of flowers bursts forth angularly, demonstrating that even barren terrain can produce new, dynamic life. And that life fights to endure.

So there is hope, and Sime's work brims with it. In the context of his work, hope is a humanist endeavour, a philosophy, and an ideology. Understanding the complicated political and social history of Ethiopia in Sime's lifetime, one appreciates the value and complications of the notion. Hope is not simplistic; it requires commitment, perseverance, and constant nurturing. Sime has proved that the concept has real weight, both in his art and with the Zoma Museum, which he and anthropologist and curator Meskerem Assegued co-founded in Addis Ababa. Comprising a school, a working farm, a garden of indigenous plants, a library, a café, and exhibition and project spaces, Zoma offers a holistic conception of how community, sustainability, and art can be merged into a unified vision—one that posits a way forward toward a future in which nature, society, and creativity thrive together. Hope abounds at Zoma. Sime and Assegued have fought hard for that to be the case.

Then, there is the intensive labour required to make the artworks themselves, whose complex materiality and intricate fabrication are a testament to the artist's commitment to his chosen materials. Sime drafts and sketches constantly, often on scraps of paper, to capture an idea when it strikes, considering the medium and composition simultaneously. A team of assistants works under his direction to assemble the tableaux as he has envisioned them. Creating the works requires the kind of enduring patience a gardener or farmer must possess to wait for flowers to bloom or crops to mature. This temporal element in both the making and the viewing of Sime's works cannot be overstated: a braid of wire appears to wend endlessly, or, at least, the implication of the infinite is there. The meshed strands point to a continuum and a connectedness that takes time to unfold. From afar, many of his compositions contain fundamentally graphic forms, but closer inspection reveals an intricacy that belies that initial impression.

This notion of slow looking is integral to Sime's approach. In our fast-paced world, he reminds us that we must take the time to observe closely, to follow each thread. Once we allow ourselves to do so, we can get lost in the details of Sime's surfaces. His work initiates a meditative process that encourages engaged study and reflection. As we investigate and interrogate the work, we also learn about our own process of viewing it.

Detail, *Tightrope: Surface and Shadow 2* (2016) by Elias Sime. Reclaimed electronic components and buttons on panel, 275.9 × 519.8 cm. Pizzuti Collection, Columbus, OH.

Foreground:
Tightrope: (9) While Observing . . (2018) by Elias Sime. Reclaimed electronic components and insulated wire on panel. 239.7 × 161 cm. Collection of Robert and Karen Duncan, Lincoln, NE.

Background:
Tightrope. The Dominant (2017) by Elias Sime. Reclaimed insulated wire on panel. 206.7 × 320 cm. Collection of Erica Tennenbaum and Alex Friedman, New York.

Above:
Installation of *Tightrope: Whirlwind* (2017) by Elias Sime. Reclaimed insulated wire on panel, 278.8 × 362 cm. Courtesy of the artist and James Cohan, New York.

Below:
Detail, *Tightrope: (9) While Observing . . .*

> HUMANS ARE THE BRIDGE BETWEEN THE NATURAL AND BUILT ENVIRONMENTS. WE CANNOT BE SEPARATED FROM EITHER ONE.
>
> — Elias Sime

For Sime, the materials he selects, whether repurposed or new, have biographies of their own. They carry associations that, in the artist's hands, are reimagined, gaining a new existence beyond their intended use—one that values their formal qualities, recognizes their latent beauty, and honours the work they were created to perform. In the case of reused materials, the idea that signals have been sent through these wires, that these buttons have had a bodily relationship, and that these keyboards have been touched and tapped by human fingers nods to their previous existence and to an unexpected reinvention. Sime brings the aesthetics and meanings of these materials into alignment as an analogy for the potential of imagination, inviting us to appreciate the beauty of an object's efficiency and purpose.

The artist's ongoing series of the past decade, *Tightrope*, begun in 2009, acknowledges the tensions among technology, society, and nature without elevating one over the other or implying any kind of hierarchy. The densely woven and layered surfaces draw upon their materiality to comment on ecological sustainability, the resilience of nature, our social responsibility, and the beauty of the utilitarian. Through the title *Tightrope*, Sime recognizes the uneasy balance between the advances made possible by technology and the impact they have had on our humanity and environment, exploring how devices intended to connect us have mediated our interactions and lived experiences while creating massive amounts of e-waste. He deconstructs these modern means of communication to expose and demystify their internal dynamics, allowing a new lyricism and energy to emerge. Sime's work also points to the fact that the natural pathways that exist in humans, flora, fauna, and the environment—the organic fibres we all share—are not unlike the inner workings of man-made machines. The message of interconnectivity and commonality over difference pervades Sime's oeuvre.

For this exhibition featuring tableaux of varying scales drawn from private and institutional collections throughout North America, the artist created two new works, *Tightrope: Silent 1* and *Tightrope: Silent 2* (both 2019). Both consist solely of computer keys: *Silent 1* is a grid of horizontal and vertical rows, while *Silent 2* is arranged along diagonals. Reminiscent of earlier all-over abstractions included in the exhibition, such as *Tightrope: Hands and Feet* (2009–14), these new examples are even more pared down. In the computer keys' resemblance to tesserae, *Silent 1* and *Silent 2* are evocative of ancient Roman mosaics, which were used primarily as floor coverings, echoing Sime's process of composing his works on the ground. Their simplicity casts the silence indicated in their titles as a kind of open and thoughtful space, which, however, like the keys themselves, is loaded with signs. In Sime's words, "Sometimes, thoughts are expressed through noise, and other times, through silence. The keyboard is not loud, but it is full of symbols."

Another recent body of work within the *Tightrope* series, represented by two works in the exhibition, *Tightrope: Noiseless 2* and *Tightrope: Noiseless 23* (both 2019), also invites us to reconsider the power of silence. In the press release for Sime's 2019 solo exhibition at James Cohan in New York, the artist noted that "noise is often associated with unpleasant sounds. Noise can [. . .] seem to create words, or words can be part of noise. Words channel our thinking along familiar paths toward realistic images. The absence of noise allows our minds to create unfamiliar and abstract images. "The works in *Noiseless* aim to reflect the unfamiliar and abstract images created in the mind in the absence of noise."

Left: *Tightrope: Surface and Shadow 2* (2016) by Elias Sime. Reclaimed electronic components and buttons on panel, 275.9 × 519.8 cm. Pizzuti Collection, Columbus, OH.

Right: *Detail, Tightrope: The Dominant*

In his 1975 autobiographical work *Roland Barthes by Roland Barthes*, the French philosopher and semiotician mused, "trees are alphabets," pointing both to the indexical quality of nature, replete with information, and to the fact that trees speak their own language, with its own rules and hidden mysteries. Like Barthes, Sime uncovers and problematizes the complexities of the natural and manufactured worlds. He reveals the fluidity between what we typically consider conditions in opposition to one another. His work instantiates this philosophy, using man-made materials to evoke natural phenomena, so that we can begin to see them as in flux, in dialogue, and perhaps even in harmony. ◘

Text revised by the author from the publication *Elias Sime: Tightrope* (Wellin Museum of Art/Prestel, 2020).

TRACY L. ADLER is the Johnson-Pote Director at the Ruth and Elmer Wellin Museum of Art at Hamilton College, New York, and curator of the exhibition *Elias Sime: Tightrope*.

RESILIENCE AND CREATIVITY

Before and After. For all of us—and for the ROM—there is a clear difference between life before the coronavirus locked down our days and closed the doors of the Museum, and life afterwards. We have been jolted out of our normal rhythms and routines, facing cascading challenges affecting every aspect of our lives. And dealing with these impacts as individuals and as an institution has required true resilience.

The key to resilience is to be present where you are right now. So the ROM has effectively and quickly found creative solutions, reimagined and reinvented, operated remotely, expanded our digital presence, and remained relevant and visible while our building remained out of bounds. And because an essential part of resilience and our mandate is to make sense of the present, two ROM-created exhibitions this fall will present a snapshot of the global reaction to COVID-19.

For *Unmasking the Pandemic*, opening in September, our curators strategically collected more than 200 masks from 20 countries, masks that were created in response to the pandemic. The non-medical masks are symbols of resilience as well as creativity, telling cultural stories, embodying important messages, and demonstrating the power of artistic ingenuity, strength, and unity.

#MyPandemicStory opens in October and will capture this moment in history. The ROM is asking kids aged 4–18 to submit original creative works of artwork and stories in any format they choose—song, painting, poem, video—that symbolize their thoughts and experiences of this extraordinary year. Selected submissions in this exhibition will live on for future generations as part of our permanent collection. *Unprecedented* explores themes of resilience, and social, emotional, and physical impacts on young people through this period and its aftermath.

Resilience—which takes optimism, commitment, and creativity—is the common thread of our attitude and actions. The coronavirus forced us as individuals and as a society to be adaptable, deepen our appreciation for what is important, and reevaluate our priorities. We are deeply grateful that you have continued to make the ROM a priority.

The ROM has an important part to play in the healing and recovery needed in the coming years, bringing the community together, inspiring people, and changing the way they see the world. Your support will continue to enable us to ensure that the ROM's After is as expansive as our Before, that we fulfill our role as an anchor in the community. We truly appreciate all you have done, and will do, to make that possible.

Sincerely,

Susan

Susan Horvath,
ROM Governors President & CEO

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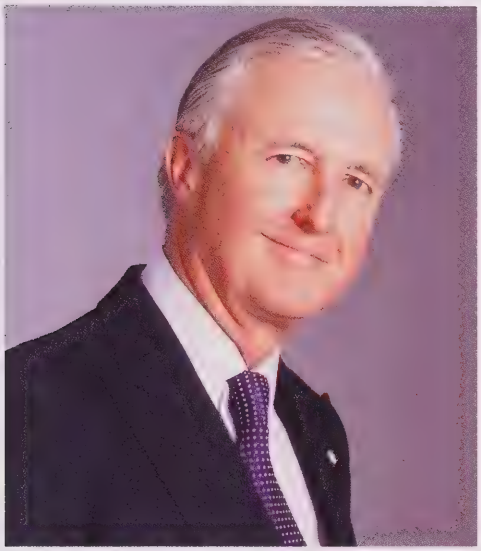
W. GALEN WESTON
1940–2021



The ROM is deeply saddened by the death of Galen Weston, our dear friend, a visionary leader renowned for his professional acumen and his expansive philanthropy, and a treasured Canadian. For more than five decades, the venerable Weston family has forged a deep relationship with the ROM—as engaged volunteers and generous donors supporting the growth and development of the Museum.

The Westons' passionate commitment began with Galen's parents, Garfield and Reta Lila, and his father was the first to donate to the ROM. Since then, generations of the Weston family have volunteered and helped the ROM reach ambitious goals—for collections, education, and galleries. Named spaces throughout the Museum reflect the family's extensive interests and contributions: the Garfield Weston Exhibition Hall, the Reta Lila Weston Room, the Weston Family Wing, and the Hilary and Galen Weston Wing.

When presenting the Weston gift to Renaissance ROM (a transformational cultural project chaired by his wife, the Honourable Hilary M. Weston, CM, OOnt) in 2004, Galen Weston recognized that the ROM is "doing great things for the city, community, and country."

Galen's friendship and support will be deeply missed by all of us at the ROM, and we will always cherish that lasting connection carved in stone at the iconic Weston Entrance on Queen's Park.

It is said that those who live in the hearts and minds of those they leave behind never die. Galen Weston's extraordinary legacy here, across Canada, and around the world will be felt for generations to come. He will live on forever. The ROM salutes and mourns our remarkable friend Galen Weston.

JOSEPH LEBOVIC
1929–2021

Joseph Lebovic was an extraordinary person whose bountiful contributions in healthcare, education, research, and culture have been felt over decades across the province.

He was a man with a remarkable history and a profound sense of building better lives—for himself as a Holocaust survivor and immigrant to Canada, and for other individuals and communities in Ontario and Canada.

Joe joined the Board of ROM Governors in March 2019 and immediately became one of our most active and engaged volunteers. He took on a major role as the primary advisor to the ROM's emerging Jewish Art & Culture Initiative. Joe fervently believed that shared knowledge is the only way to combat prejudice and hate in our world, and we are pleased that he viewed the ROM as a strong conduit of that education and understanding.

We extend our deep condolences to the Lebovic family at this time of passing and grief. May the memory of Joseph Lebovic be a blessing.

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Enjoy playing on the impeccable greens of Beacon Hall, along with delicious on-course food and a superb lunch reception, ROM trivia and unique awards for top teams. Here's your opportunity to get some much-needed and safe social engagement in the outdoors in a beautiful setting–for a great cause.

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LIVES AND LEGACIES

A lifelong passion for the ROM

Endowment Fund Gifts

By establishing a named endowment—either today or in your estate plans—you can honour a loved one or keep your own legacy alive at the ROM by supporting its future.

Doug Gibson has loved the ROM since childhood. Some of his earliest memories are of going to the Museum with his mother in the early 1950s, which sparked a lifelong fascination with natural history. "Back then, they had a crystal cave in the geology gallery," he recalls. "When you looked into it, it was like an optical illusion."

Even after he left Toronto for Brantford, Ontario, where he practised family medicine for nearly 40 years, he often came back to visit the ROM. When he moved back to the city after retirement, he jumped at the chance to volunteer for the Museum that has been so close to his heart.

"The ROM has been a salvation to me every single day since I ended my practice," he says. "It has provided a source of learning and associations with volunteers and curatorial staff, who are involved in significant research."

Since joining the Museum in 2010, Doug has been a gallery interpreter and ROM Walker, and currently serves as a docent, leading visitors on tours around the Museum to learn about the many wonders in its collections. He is also a member of the Friends of Palaeontology and Friends of Earth and Space groups, and has chaired the Docent and ROMWalks committee.

In his near-decade of volunteering, Doug has learned volumes about history, geology, and palaeontology. A big believer in lifelong learning, he enjoys sharing his knowledge and enthusiasm with visitors, especially during free evening events, when the ROM opens its doors to underserved communities.

"As docents, we try to build a sense of wonder," he says. "Once you get people excited about objects like the Striding Lion from Nebuchadnezzar's throne room or the beautiful Light of the Desert cerussite gemstone, they will come back."

Yet it's not just the wondrous objects in the ROM's collections that matter to Doug—he also values the Museum's commitment to accessibility, diversity, and Indigenous reconciliation. He's especially proud of the ROM's recent work in climate change, citing the newly endowed Allan and Helaine Shiff Curatorship of Climate Change and the upcoming opening of the Willner Madge Gallery, Dawn of Life in 2021.

"Climate change is one of the biggest issues of our time," he says. "The ROM's research into early life on the planet and climate change can suggest ways in which we might deal with our present climate emergency."

You have to support the things you believe in, according to Doug. For this reason, he has committed his resources to creating The Gibson Family Endowment Fund, which supports education and research in palaeontology. He has also named the fund as a beneficiary of his estate, further ensuring that this vital work will continue long after he retires from volunteering.

The best part, he adds, is that anyone can contribute to the fund. "My relatives all know about my obsession with the ROM, and I'm encouraging them to support it too."

Through his generosity, Doug will forever enable the ROM's mission to inform and inspire people to learn from the past, understand the present, and build a brighter future.

LEARN MORE

To learn more about leaving a legacy at the ROM, contact Janice Correa at **janicec@rom.on.ca**.

Drawing Chintz

The pens used to draw highly detailed scenes and intricate patterns

BY **SARAH FEE**

Artisans in India create textile masterworks using a deceptively simple tool, the kalam pen. It is made of a bamboo shaft, sharpened at one end, the other wrapped with yarn to create a reservoir for holding liquids. By gently squeezing the yarn bulb, the artisan releases liquids onto the surface of the cloth. These liquids include dye agents (mordants) to bind red and black dyes to the cloth, direct dyes such as turmeric to create yellow, and also molten wax. Kalam pens are made in several shapes and sizes. To create fine lines in white, made by drawing with hot wax, the artisan uses a kalam fitted with a metal spout and a reservoir made of hair; covering larger surfaces requires kalam with wide shafts, or fitted with cotton pads.

Typically, the master kalam drawer first pounced or drew the design with charcoal, then traced the outlines, followed by assistants who filled larger areas.

The men who drew, printed, and dyed Indian chintz remain the least known part of this storied cloth's history. Before the 1880s, workshops and makers rarely signed their works. Today, several kalam painters have found global or national recognition and patronage as fine artists. Some, such as Chandrakant Chitara of Ahmedabad, Gujarat, come from a long line of textile artisans. Other artists—who now include women—have followed other paths. Renuka Reddy is a trained textile engineer based in Bengaluru; she is especially fascinated by process, colour, and recapturing lost kalam techniques, notably hand-drawing details in wax. Ajit Kumar Das, based in Kolkata, worked in cloth dyeing and printing before turning to kalam drawing. All three artists have featured works in the current ROM-original exhibition *The Cloth That Changed the World.* ◘

SARAH FEE is Senior Curator of Global Fashion & Textiles at the ROM.

The Cloth that changed the World

India's Painted and Printed Cottons

Explore the cloth that revolutionized fashion, art and science around the globe.

CLOSES SEPTEMBER 6, 2021

Woman's jacket. Made in coastal southeast India for the Dutch market; used in Hindeloopen, Friesland. Mordant-dyed and resist-dyed cotton, 18th century, 57.8 cm. The ROM is an agency of the government of Ontario.

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